

CLAIMS

1. (Currently amended) A device for separating specific target microorganisms from a suspension in a container of relatively large volume unrestricted as to shape and containing mixed groups of microorganisms, comprising:

a plurality of beads coated with at least one antibody material to capture the target microorganisms; and

an enclosure of relatively small volume and shape unrelated to the volume and shape of the suspension container and made of a grid material enclosing said beads, with a pore size smaller than the size of said beads and larger than the size of the microorganisms.

2. (Original) The device of claim 1 wherein said beads are made of resinous material.

3. (Original) The device of claim 1 wherein said beads are made of non-resinous material.

4. (Original) The device of claim 1 further comprising means to agitate said enclosure in the suspension.

5. (Currently amended) A method of separating target microorganisms from a suspension in a container of relatively large volume unrestricted as to shape and containing mixed groups of microorganisms, comprising:

immersing a plurality of beads coated with at least one antibody material into the suspension, said beads being held by an enclosure of relatively small volume and shape

unrelated to the volume and shape of the suspension container and made of a grid material with a pore size smaller than the size of said beads and larger than the size of the microorganisms, thereby allowing the capture of the target microorganisms by said beads; and

washing said beads to remove organisms not bounded to said beads, after pulling said enclosure from the suspension.

6. (Original) The method of claim 5 wherein at least one detergent is applied in said washing.

7. (Original) The method of claim 5 further comprising agitation of said enclosure holding said beads in the suspension.

8. (Original) The method of claim 7 wherein the time period of agitation is at least 30 minutes.

9. (Original) The method of claim 7 wherein the time period of agitation extends for several hours.

10. (Original) The method of claim 5 including the addition of at least one detergent to the suspension to decrease adsorption of non-specifically bound cells.

11. (Original) The method of claim 5 including the subsequent step of immersing the enclosure and beads in a new growth broth.

12. (Original) The method of claim 11 including the addition of an indicator material to the new growth broth.

13. (Original) The method of claim 5 including the subsequent step of separating the beads from the enclosure followed by at least one test to reveal the microorganisms of interest.

14. (Previously presented) The method of claim 5 wherein said enclosure further comprises means attached to an upper part of the enclosure for moving the enclosure in the suspension and for subsequent removal of the enclosure from the suspension.

15. (Previously presented) The device of claim 1 including means attached to an upper part of the enclosure for moving the enclosure in the suspension and for subsequent removal of the device from the suspension.

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